INTERNATIONAL SEARCH REPORT

Ir onal Application No PCT/GB2004/001537

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F16L55/165							
110 / 10033/103							
According to	International Patent Classification (IPC) or to both national classification	on and IPC					
B. FIELDS							
Minimum documentation searched (classification system followed by classification symbols) IPC 7 F16L							
Documentati	ion searched other than minimum documentation to the extent that suc	ch documents are included in the fields sea	arched				
Electronic da	ata base consulted during the International search (name of data base	and, where practical, search terms used)					
EPO-In	ternal						
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT						
Category °	Citation of document, with indication, where appropriate, of the relev	vant passages	Relevant to claim No.				
х	WO 02/25156 A (NCC DANMARK AS; EUROPROJECTS LTTC LTD (GB); SEV TH WATER LTD (GB);) 28 March 2002 (2002-03-28) cited in the application	1,2,4-21					
A	page 9; figure 2 US 5 244 624 A (STEKETEE JR CAMPBI 14 September 1993 (1993-09-14)	1-21					
	column 14, lines 27-83						
A	US 5 924 743 A (BONNAND CHRISTIAN 20 July 1999 (1999-07-20) figures 2,3	1–21					
Further documents are listed in the continuation of box C. X Patent family members are listed in annex.							
T later document published after the international filling date or priority date and not in conflict with the application but							
"A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the calmed invention "X" document of particular relevance; the calmed invention "Comment of particular relevance invention "Comment of particular releva							
filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another claim or other special reason (as specified) "Second to cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone which is cited to establish the publication date of another cannot be considered novel or cannot be considered to involve an inventive step when the datmed invention cannot be considered to involve an inventive step when the							
"O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but "Carmot be Carmot be interned with one or more other such documents, such combination being obvious to a person skilled in the art.							
later than the priority date claimed "&" document member of the same patent ramily							
Date of the actual completion of the international search 2 July 2004 Date of mailing of the international search report 13/07/2004							
	2 July 2004						
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk T.L - 2280 HV Rijswijk							
	Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Dauvergne, B					

INTERNATIONAL SEARCH REPORT

information on patent family members

In tional Application No PCT/GB2004/001537

	•	_	PC1/GB20		JU4/UU153/	
Patent document cited in search report	Publicat date		Patent family member(s)		Publication date	
WO 0225156	A 28-03	-2002 AU	8788601	A	02-04-2002	
WO 0223130	A 20 00	CA	2422570		28-03-2002	
		CZ	20030796		17-12-2003	
		ĔP	1322882		02-07-2003	
		พื่อ	0225156		28-03-2002	
		JP	2004508989		25-03-2004	
		NO	20031240		16-05-2003	
		NZ NZ	524775		26-03-2004	
		TR	200300348		22-09-2003	
		US	200300340		26-02-2004	
					19-09-1989	
US 5244624	A 14-09	-1993 US	4867921		23-07-1991	
		US	5034180		14-03-1995	
		US	5397513		29-11-1994	
		US	5368809			
		AT	210987		15-10-1993	
		AU	609739		09-05-1991	
		AU	7946887		02-02-1989	
		BE	1002140		31-07-1990	
		CA	1286581		23-07-1991	
		DE	3727786		09-02-1989	
		DK	429187		29-01-1989	
		FR	2618873		03-02-1989	
		GB	2208311		22-03-1989	
		HK	102292		24-12-1992	
		JP	1042220		14-02-1989	
		JP	2640103		13-08-1997	
		MX	166715		29-01-1992	
		NL	8702054		16-02-1989	
		NO	873661		30-01-1989	
		SE	502649		04-12-1995	
		SE	8703214		29-01-1989	
		SG	103192		04-12-1992	
		US	5447665		05-09-1995	
		US	5403120		04-04-1995	
		US	5589131		31-12-1996	
		US	6089275		18-07-2000	
		US	6135748		24-10-2000	
		US	5587126		24-12-1996	
		AT	399551		26-06-1995	
		AT	86289		15-10-1994	
		UA	638206		24-06-1993	
		AU	3265089		19-10-1989	
		AU	662395		31-08-1995	
		AU	3536093		20-05-1993	
÷		BE	1002158	A5	14-08-1990	
		CA	1337892		09-01-1996	
		CH	683122		14-01-1994	
		DE	3912205	A1	26-10-1989	
		DK	174689) A	14-10-1989	
		ES	2013175		16-04-1990	
		FI		A ,B,	14-10-1989	
		FR	2630185		20-10-1989	
		GB	2218490		15-11-1989	
		GB	2251471		08-07-1992	
					08-07-1992	
		CD				
		GB HK	2251472			
		GB HK HK	102293 102393	3 A `	08-10-1993 08-10-1993	

INTERNATIONAL SEARCH REPORT

.nformation on patent family members

lı atlonal Application No PCT/GB2004/001537

	atent document d in search report		Publication date		Patent family member(s)		Publication date
US	5244624	Α		HK HU IE	102493 53700 73221	A2	08-10-1993 28-11-1990 07-05-1997
US	5924743	Α	20-07-1999	FR AU CA CN DE DE EP ES WO JP JP RU ZA	2736989 6619296 2198936 1158156 69608229 69608229 0782679 2150687 9704268 2977285 9511823 2157945 9606120	A A1 A,B D1 T2 A1 T3 A1 B2 T	24-01-1997 18-02-1997 06-02-1997 27-08-1997 15-06-2000 25-01-2001 09-07-1997 01-12-2000 06-02-1997 15-11-1999 25-11-1997 20-10-2000 03-02-1997